BULLETIN Volume 32 - Number 31 / August 18, 1978 BROOKHAVEN NATIONAL LABORATORY

OER Head Meets With Lab Officials

8-1021-78



John Deutch (center) Director of the Office of Energy Research, and other officials from the Department of Energy, together with three members of the Chicago Operations Office and members of the Brookhaven Area Office, met with Laboratory officials on Tuesday to discuss the Institutional Plan for Brookhaven. Here Deutch is seen talking with Gerald F. Tape, President of AUI (right) and Laboratory Director George Vineyard, about some of the finer points of Brookhaven's plans and DOE's management arrangements.

—photo by Rosen

DEE Research Reveals New Reaction Mechanism

Richard Sapienza of the Department of Energy and Environment revealed a new reaction mechanism for synthesis gas reactions at the Pittsburg Energy Technology Center last week. This work provides a unified picture of Fischer-Trospch chemistry capable of explaining or predicting catalyst behavior. Of the general routes to convert coal to chemicals, the production of petrochemicals from synthesis gas (a mixture of hydrogen and carbon monoxide produced from water and coal), catalyzed by transition metals, has attracted considerable attention. Practically the full range of petrochemicals and oil products can be obtained from these syntheses.

The principal impetus to this field was given by the 1923 experiments of Fischer and Tropsch. These reactions were a large part of the first successful attempt to make a nation (Germany) almost independent

of natural petroleum. Since the petroleum crisis in the U.S., renewed interest in this process has further developed this chemistry, but the reaction mechanism and the role of the catalyst had yet to be unequivocally established.

The basic BNL hypothesis is the chemisorption of carbon oxides (carbon monoxide) on metal surfaces through oxygen rather than carbon. The possibility of this mode of carbon oxide activation has previously been ignored. This simple assumption has allowed the Catalysis Group to predict and interpret the observations of this important future energy process, with the goal of developing more active and selective catalysts for these reactions.

Sapienza and colleagues James R. Lynch, Michael J. Sansone and Len D. Spaulding will be presenting this work at the Miami ACS Meeting in September.

S&EP Alerts Users of Rubber Cement

A Hazardous Materials Control Program was established at the Laboratory nearly two years ago to identify hazards associated with materials used at the Laboratory. As part of the Laboratory's efforts to provide a safe and healthy working environment for its employees/guests and their families and to be a good neighbor, the Safety and Environmental Protection Division maintains a vigilance for hazardous materials that may be present in the home and other nonoccupational environments. Recently two materials have been identified that contain components which pose significant risks to consumers. These products are rubber cements which contain benzene and fiberglass resin catalysts which contain methyl ketone peroxide (MEKP).

The Industrial Hygiene Group was informed by the Government-Industry Data Exchange Program (GIDEP) that three lots of Carter's Rubber Cement contain benzene. These lots are numbered 8040-00-291-8625, 8040-00-266-0849, and 8040-00-281-9244.

Surveys have indicated that even short term use of rubber cement (ex. BNL stock item #S-00020) in areas which are not properly ventilated will result in benzene concentrations which may exceed the current standard established by the Occupational Safety and Health Administration.

Chronic or repeated exposure to benzene may cause headache, fatigue, nervousness, shortness of breath and serious blood disorders. The permissible exposure standard for benzene was lowered recently when data became available indicating that benzene may cause leukemia in man.

Since it is recommended that all exposures to benzene be avoided, adhesives which do not contain benzene should be substituted for products in which benzene is a component. If this information is not readily available, the manufacturer should be consulted.

GIDEP has identified another extremely hazardous agent, methyl ethyl ketone peroxide (MEKP), which may be found in catalysts which are added to fiberglass resin. An eye specialist has found that a drop of this catalyst in the eye will cause blindness unless the eye is flushed immediately (within four seconds) with a large quantity of water.

MEKP is an irritant and a strong oxidizer. It may explode when subjected to shock or heat or by spontaneous chemical reaction. Catalysts which contain MEKP should be stored in a cool, ventilated area which is isolated from readily oxidizable materials. Safety goggles and protective clothing should be worn when handling the catalyst to prevent inadvertent exposures.

Although primarily used in the plastics industry and in aircraft maintenance, MEKP based catalysts are readily available to consumers in fiberglass body repair kits for autos and boats and in hobby modelling kits. When a catalyst or hardner is purchased, it is recommended that an inquiry be directed to the manufacturer concerning the MEKP content in the product.

Additional safety and health information about MEKP and benzene is available from the Industrial Hygiene Group at Ext. 4229 or 4247.

Reel To Reel Taping At 820

On August 11, the Power Transmission Project's one-of-a-kind cable winding facility successfully completed its trial run and is now ready to go into actual operation. In Building 820, between the payoff reel and the takeup reel, a hollow copper cable core will soon move slowly and evenly undergoing the intricate and precise wrapping of the layers of polymer plastic tape and niobium-tin required for superconducting cables.

The Power Transmission Project is developing superconducting cables to carry large amounts of electricity underground. The conductors of the cables are formed primarily from niobium-tin; a compound which possesses almost no resistance to the flow of electricity when cooled to a low temperature.

About two years ago, it was decided that the Project could best be served by having its own cable winding plant. The few remaining manufacturers of high voltage transmission cable have a full production schedule and are not able to meet the fast changing requirements of a research organization such as BNL.

In the past, it took about one year from the time the specs were sent to the manufacturer to the time the cable was delivered. With cable research proceeding at a fast clip at Brookhaven, scientists would often want changes in the specs which the manufacturer could not handle. Now, the "recipe" can be changed as desired and the finished product will be up to date.

In 1976, when the Anaconda Wire and Cable Co. of Hastings, New York, went out of the high voltage cable business, BNL purchased one cable taping line from them for \$50,000. The equipment was stored in building 820, then just a down-at-the-heel warehouse. Within the last year, the building has been transformed into a pristine, carefully organized cable winding plant. Tom Muller, a development engineer, put it all together with the aid of three technicians, Bob Kowalski, Hank Noehren and Kevin Stevenson.

For openers, the whole building was swabbed from top to bottom, the machinery steam cleaned and, in some cases, scoured by hand.

At the center of the building, an enclosed "clean" winding room was constructed. This room is heavily insulated and air conditioned and is kept under a slight positive pressure so that it does not take in air from the outside. Dust or carbon particles are very detrimental to high voltage cables. The room can be chilled to temperatures lower than comfortable for human beings, or heated to higher temperatures than normal, depending on the requirements of the polymer tapes being tested. Designed by Plant Engineering to

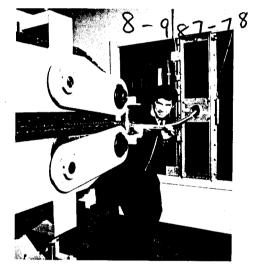
the Project's specifications, the winding room also permits up to 30 tons storage overhead.

Outside the room at either end are the cable payoff reel and the takeup reel, both mounted on interchangeable wagons, so that they can be moved at will. Controlling the feed speed to and from the winding room are ingenious cable catenary control mechanisms, designed by Muller.

The 4½ ton steel reels are eight feet in diameter and the spools have been built up to 100 inches in diameter – "the minimum radius we would want to bend any given cable," says Muller. How much bend a cable can take is a major factor in cable design.

The winding line consists of four identical sections, each containing rotating winding drums which hold 16 tapes. Currently, the machines are able to wrap 64 tapes at once, with a maximum capability of 128 tapes. The cata-puller, a tank-like machine with rubber tracks, pulls the core through the line at exactly the right speed so that the tape is put on correctly and the butt space requirements are met.

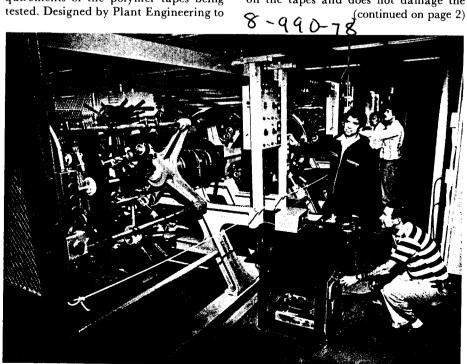
The machinery is made of cast iron and was in use for many years; three sections were made in 1936 and one at the turn of



Muller examines the finished cable as it comes through the cata-puller and is fed onto the takeup reel outside the room.

the century. They are bigger than modern machinery of this type, but Muller says that they seem to be an ideal size for research. "You have more room to get at the cable during manufacture," he says, "and you can set up the X-ray unit with great ease because there is more distance between the winding heads."

The main motor is a 40hp DC Reliance drive unit which can be programmed as to how fast or slow to accelerate from zero to the speed setting. This controls the tension on the tapes and does not damage the



In the winding room, Tom Muller (center) operates the winding machine, while Bob Kowalski (right) applies tension control to the taping heads. At rear, Hank Noehren (left) and Kevin Stevenson observe other sections for proper operation.

—photos by Reben

Service Awards



Service awards were presented recently to Amanda L. Harrison (20 years) and Lawrence M. Cook (20 years) by the Medical Department's Deputy Chairman, Robert B. Aronson. —photo by Reben

Correction

Last week's article "The Benefits Package" listed the maternity benefit as \$350. In the need for condensing all the information contained in the article, that particular statement became too condensed. Actually the normal child delivery benefit was increased in 1976 from \$112.50 to \$245 and the Caesarean Section delivery benefit was increased from \$225 to \$350.

Arrivals & Departures

Arrivals

George M. Gammel	Accelerator
Bruce E. Miller	Accelerator
Stephen V. Musolini	Safety & Env. Prot.
Yani Pavlidis	Plant Engrg
Charles Trabocchi	Accelerator
John J. Woods	Accelerator

Departures

Judith A. Bates	Satety & Env. Prot
Michael E. Baser	Energy & Env
Jeffrey D. Chasick	Nuclear Energy
Cheryl L. Greco	Nuclear Energy
Joseph D. Schank Jr	Energy & Env
Ralph T. Yang	Energy & Env
- 0	0,

7-15+0-15Cable Winding (Cont'd)

cable during starting and stopping. A variable displacement hydraulic pump is directly driven with the rotating drums and coupled to a large hydraulic motor, forming an infinitely adjustable tranmission team.

Brookhaven's new facility is unique in the country. In addition to the primary research on superconducting cables, it will also be used for work on room temperature cables under development by DOE.

"If the cable winding facility continues to operate as smoothly as it did on its startup," says Project Director Eric Forsyth, "it is our hope that within two years, we will have a 100 metre superconducting cable ready to be tested at the 5th Avenue site."

Weekend Tour

0

Weekend visitors will have an opportunity to see for themselves how superconducting cables will be produced for the Power Transmission Project in the new cable winding facility. This technology makes possible a dramatic reduction in the size and number of cables now required by conventional means to carry electricity underground.

EXHIBIT CENTER

Tati Film on Wednesday

The film "Playtime," directed by and starring Jacques Tati, will be shown in Berkner Hall at 8 p.m. on Wednesday, August 23. The movie is being sponsored by The French Group of BNL, who invite all members of the BNL community and their friends to attend. Those who are not members of Le Cercle Français de BNL will be asked to contribute \$1.50 (75¢ for students).

As in all Tati films, the central character in "Playtime" is Monsieur Hulot, whose encounters with anything more technologically advanced than the wheel are inevitably disastrous (and hilarious). The sound track (relatively unimportant in a Tati film where most of the humor is visual) is in English. Although this is against the principles of the French Group, our desire to see the movie overcame our scruples.

Slow Scan For Fast Info

The Research Library is participating in a six-month pilot experiment involving the use of slow-scan television and telefacsimile equipment.

Thirteen libraries, widely dispersed geographically, are using this equipment for the transmission, communication and exchange of information to promote and to facilitate the sharing of informational resources and to have quicker access to special kinds of materials and expertise that are available at particular sites but not at others.

In the realm of information resource sharing, the participating libraries will use the equipment in conjunction with traditional kinds of activities and transactions among libraries, major among which are interlibrary loans of publications and documents and delivery of photocopies of materials from one facility to another.

Three pieces of equipment are used. A slow scan television will provide an image of a document of possible interest for visual review by a requester. Should the viewer verify the need for the entire document it is then transmitted at the rate of 4 to 6 seconds a page on the Rapifax.

Midway through the experiment a member of the Federal Library Network Prototype Project will visit Brookhaven to discuss the experiment with library patrons for whom material has been obtained.



Marie Hicks of the Research Library transmits material from the Research Library to a requesting library. The image on the SST is illustrative of what can come from a West Coast participant.

— photo by Humphrey

Lekach's Sabre Favored

Stanley Lekach, a nuclear engineer in the Department of Nuclear Energy, was one among many July visitors to Hollywood, Florida. He was, however, the only traveler to come home as the 1978 national sabre fencing champion. Lekach has qualified for the national championships annually since 1970, and on July 29 captured first place in this year's meet held in Hollywood.

Lekach has been fencing since he was a sophomore at the University of California at Berkeley. When he moved to New York in 1974 to accept his position at BNL, Lekach was especially happy to make the move because "99% of the best sabre fencers in America are found in New York," he said. After the championship, Lekach gave great credit to his coach at the New York Athletic Club. "We have the best coach in the country, perhaps the world, in Csaba Elthes," he stated. "Five of the six finalists in the sabre this year were his students."

Certainly, Lekach's own efforts deserve credit. After being eliminated in the opening round of the 1969 sabre fencing nationals, Lekach was determined to make a better showing in future competitions. He studied films of the world's best fencers "until every move was memorized." The next year, to the surprise of everyone except perhaps Lekach himself, he became a finalist and placed sixth in the country.

Sabre fencing judging is unique in that, unlike foil or epée, human and not electronic judges decide upon the fencer's "touché," or the thrust with the point and both edges of the blade. "If a national champion makes a big attack yet doesn't make the touch, the officials may still raise their hands," one spectator observed. "That's why it is hard to break to the top."

Lekach, who competed with approximately 200 entrants from all over the country, has fenced for 12 years. Taking first



1978 national sabre fencing champion Stanley Lekach who wandered into his first fencing class "by accident and did well right off the bat."

place in the national championship constituted one of the steps which he must take toward being selected for the 1980 US Olympic fencing team. Points are awarded for each of the qualifying competitions which the fencer enters prior to 1980. The system is arranged so that as the meets approach the 1980 deadline, more points can be awarded. In this way, the fencer's most current performance is awarded the greatest value.

Currently, Lekach's point-accumulation places him in second position. With the national championship freshly his, Stanley Lekach is preparing himself for the largest prize yet - the 1980 Moscow Summer Olympics.

—Rosanne Pagano

King Tut Finale

As applicants to the King Tut exhibit are now aware, the lottery has been held. The 160 winners are jumping for joy and the losers are gnashing their teeth. The Personnel Office notified all 400 applicants of their status by letter this week.

It is most regrettable that not all the reservations could be honored. Even the Met was unprepared for the deluge that greeted their announcement of the group tours, and a lot of people have been disappointed. However, for those who wish to give it another try, individual tickets will go on sale through Ticketron on September 18.

Cafeteria Menu

Week Ending August 25, 1978

Manday Assessed 01		
Monday, August 21	()	20
Rosy onion soup	(cup)	.30
	(bowl)	.40
Chicken à la king on rice		1.20
Western omelette and 1 veg.		1.25
Hot Deli - Pastramı	(on bread)	1.15
	(on roll)	1.25
Tuesday, August 22		
Chicken mushroom supreme	(cup)	.30
_	(bowl)	.40
Chinese pepper steak on rice	, ,	1.30
Barbequed spare ribs & blac	k-eyed peas	1.40
Hot Deli - Roast beef	(on bread)	1.25
	(on roll)	1.35
Wednesday, August 23	` ,	
Split pea soup	(cup)	.30
	(bowl)	.40
Breaded flounder filet and French fries		1.25
Spaghetti with Italian Sauce		
and garlic bread		1.30
Hot Deli - Baked Virginia ha	ım	1.00
	(on bread)	1.25
	(on roll)	1.35
Thursday, August 24	(0111011)	
Cream of chicken soup	(cup)	.30
этомин от отношен оочр	(bowl)	.40
Tacos and refried beans	(50W1)	1.35
Beef hash and 1 veg.		1.20
Scalloped ham & potatoes		1.25
Hot Deli - Roast turkey	(b d)	1.25
Hot Den - Roast turkey	(on bread)	
Friday, August 25	(on roll)	1.35
Manhattan clam chowder	(40
iviaimattan ciam chowder	(cup)	.40
	(bowl)	.50

EMERGENCY PHONE NUMBER

Beef liver with onions and 1 veg.

Hot Deli - Meatball hero

1.25

1.15

Fish 'n' chips

2222

Cref Values

January	\$35.72	February	\$34.96
March	36.15	April	39.28
May	39.62	June	38.94
•	Inly	\$41.03	

A Summer Visitor 8-741-18



Agnes Nagy Csato, who is making her second trip to the United States as a BNL summer scientific staff member, has lived and studied all her life in Budapest, Hungary where she is a senior researcher in the Central Research Institute for Physics. This summer, Dr. Csato is studying ferrocene derivatives in BNL's Hot Lab with Manny Hillman with whom she has collaborated for eight years, and Barry Gordon. Above, she displays a model of the structure of bridged ferrocene derivatives. Dr. Csato, whose undergraduate degree in physical chemistry and doctorate in radiochemistry were both awarded from the University of Budapest, is one among only five women scientists in Hungary performing ferrocene derivative research. Facilities for research in her native country are good, Dr. Csato stated, but not like here where she enjoys the lectures and appreciates the chance to "discuss work in a friendly atmosphere." Projects such as ISABELLE are "very great jumps for the Lab," she noted, "this is a very exciting time to be studying."

—photo by Humphrey

BROOKHAVEN

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IBEW Meeting

Local 2230, I.B.E.W. will hold its regular monthly meeting on Aug. 24, 1978, at 8 p.m. in the Knights of Columbus Hall, Railroad Ave., Patchogue. There will also be an afternoon meeting at 2 p.m. for shift workers in the Union office at 31 Oak Street, Patchogue. On the agenda will be regular business, committee reports and the President's report.

Touch Football

The season for BNL touch football is fast approaching. League games will be played at the BERA Recreation Park each Thursday evening at 5:20, starting in September and continuing to the end of Octo-

There is no blocking and limited body contact, so those interested, of all ages, can play with little fear of being injured.

Entry blanks may be obtained at the BERA Film Service Office located in the Cafeteria. New teams are welcome. If you do not have a team but would like to play, call Ed Taylor, extension 4126, for players' pool information.

Softball

LEAGUE I

Six Pax 13 Titans 1

Ken Asselta hit a homerun for the Six Pax.

Old Timers 8 Phoubars 7

Neal Cariello, filling in for the famous Fontans, pitched the Old Timers to victory over the Phoubars in 8 innings. Jim Roesler drove in the tying run in the seventh inning and Dick Adams drove in the winning run in the eighth inning for the Old Timers.

Ravens 7 Blue Jays 2

Leroy James had a 3-run homerun for

Summer Rec Program

On-Site Program

Last Friday's special event was the annual Halloween Party. Festivities began with a costume parade followed by enthusiastic dunking of apples, eating donuts from a string and playing "pin the wart on

The children were further entertained by a trip through the spook house, complete with ghosts, spider webs and mummies; an experience not easily forgotten.

Costume contest winners were:

Scariest - Saumitra Pande, Lisa Yao, Mark Best - Douglas Kirsch, Maureen McTague,

Prettiest - Maki Kaiho, Tima Spiller, Osnat

Most Original - Steven Wuhr, Paula Fortenla,

Vicky Meadows.

Coming Events:

This week - Carnival Day

Next week - Monster Day and Spectac-

Swimming Pool Program

Put a cup on your head and swim across the pool. Those were the instructions given by the lifeguards to the four through nine year olds at the pool last Friday. As the younger kids attempted this precarious feat in the shallow end, the older children were racing against each other in the deep end while balancing a ping-pong ball on the end of a spoon held between clenched teeth. Dexterity was the word of the day as only those with a steady head and nerves of steel came out victorious.

Dinner-Theatre Box Office Opens Today

Tickets for the 1978 Dinner-Theatre production of Neil Simon's, "Come Blow Your Horn," go on sale Friday, August 25. Admission to the Dinner-Theatre, to be held the evenings of September 15, 16 and 17 in the Brookhaven Center, is \$15 per person and includes an open bar, dinner, the performace and dancing.

"Come Blow Your Horn," Simon's first play, opened on Broadway in 1961 where it made an 85-week run and yielded \$10,000 per week. It is a comedy in three acts about a Jewish father and his two unmarried sons. When the eldest son leaves home for a bachelor's apartment of his own, his father's patience is tried. But when the younger, more obedient son follows soon after, the father is pushed to his limit.

Richard Phillips and Tom Whittaker portray the sons in the presentation by Richard Dolce Productions. Elane Wilkes plays the unfailingly well-meaning Jewish mother and Joy Hilborn and Barbara Nuzzo represent the love interests. The father is played by Matthew Mogavero.

Beginning August 25 and continuing each day until a capacity crowd has been reached, ticket sales will be held from 11:30 a.m. to 1 p.m. in the cafeteria. When reserving their seats, theatre-goers will also make their dinner selection from a choice of Chicken Cordon Bleu or Prime Ribs of Beef No reservations will be taken by telephone.



Matthew Mogavero portrays the father of two (to his mind) wayward bachelor sons in the Dinner-Theatre's September presentation of, "Come Blow Your Horn."

Friday and Saturday, September 15 and 16, the Dinner-Theatre's bar opens at 6 p.m., followed by dinner at 7:30 and performance time at 9. On Sunday, September 17, the bar wil be open at 5 p.m., dinner at 6:30 and curtain at 8. Dancing to the Lang Trio follows each performance.

Bicycle Race

The fall open is scheduled for Sunday Sept. 10th with registration beginning at 8:30 a.m. A slightly modified race route has been worked out to minimize the conflict with arriving visitors, so that a two-lap event will start at 0900, and the usual single-lap event at 0915. The new route differs from the previous one in that it is entirely outside the Lab. The starting and finishing point is on Wm. Floyd Parkway at the North Gate, where adequate space is available for parking and the route is clockwise on Wm. Floyd, Rte 25, Manorville-Wading River Rd., North Rd., Moriches-Yaphank Rd. and Wm. Floyd.

It is anticipated that the 2-lap event, with a distance of about 32 miles, will be of interest mainly to the more serious racers, and there will be only one category. The single-lap event will have categories for junior, senior and veteran men and women. Medallions will be awarded to the top finishers in each category. The entrance fee is \$1.00. The race is open to Laboratory employees, their families and guests, and to members of other L.I. bicycle clubs.

It's. . . Cricket

The Brookhaven International Cricket Club played its second away game of the season on Aug. 13 at Princeton, N.J. against the Princeton University Cricket club. The teams were evenly matched. Brookhaven batted first and scored 82 runs for 5 wickets in the 30 overs allotted to each team. John Millener played a great innings with beautiful shots all around the wicket; and was 57 not out at the close of the innings. Princeton scored 85 runs for 4 wickets in 27 overs to win the match. After the game Princeton hosted a splendid barbecue party for the players

The next intramural game is scheduled at the softball field on Aug. 20 at 1 p.m. All are welcome to participate.

Bowling

Just a reminder that bowling team applications are due today. Entry blanks are available at Cafeteria Sales Office. For information, call Carol Beckner 3483, or Bob Jones 3512.

Winners were: Four through six year olds

Garen Thomas

Timmy Fox

3rd Kina Thomas

Seven through nine year olds 1st Megan Holden

Kevin Epel

3rd Carol Gabusi Ten and over year olds

Sean Holden

Kristen Holden

Maurisa Holden

Last Monday night, over fifty eager swimmers turned out for the annual race night for children ages ten through sixteen Crazy dives, ping-pong ball in spoons, and free-style were just a few of the races that

had the contestants vying for trophies and ribbons. The proud winners were: Free-style - Lindsay Adams, Paula Kochman, Claire Issacs.

Backstroke - Maurissa Holden, Paula Kochman, Susan Henry. Crazy Dive - Lindsay Adams, Mario Fon-

tenla, Margaret McTague. Kickboard Race - Maurissa Holden, Cathy McTague, JoAnn Adams.

Ping-Pong and Spoon Race - Ronan Arbel, Joram Binenboym, Kristen Holden.

Penny Fetch - Ronan Arbel, Lindsay Adams, Cathy Diffley, Sheila McNerney.

Coming Events:

This week - Inner Tube Derby. Next week, Thursday at 7:00 p.m. -Water Carnival for children four to nine

Tennis

Winner of last week's tennis tournament were: Advanced - Ryu Iwai; Intermediate - Ronan Arbel and Leslie Terwilliger; Beginners - Steven Mona.

Classified Advertisements

Placement Notices

The Laboratory's placement policy is to select the bestqualified candidate for an available position, with consideration given to candidates in the following order of priority:(1) present employees within the department, with preference to those within the immediate work group; (2) present employees within the Laboratory as a whole; and

Each week, the Personnel Office lists new personnel placement requisitions. The purpose of these listings is, first, to provide open placement information on all nonscientific staff positions; second, to give employees an opportunity to request consideration for themselves through Personnel; and, finally, for general recruiting purposes. Because of the priority preference policy stated above, each listing does not necessarily represent an opportunity for all candidates. As a guide to readers, the listings are grouped according to the anticipated area of recruitment, as indicated below. Except when operational needs require otherwise, positions will remain open for one week following

For further information regarding a placement listing, contact the Personnel Placement Supervisor, Ext. 2882.

LABORATORY RECRUITMENT: Opportunity for present Laboratory employees

754. OFFICE SERVICES ASSISTANT - AAS or equivalent. Requires excellent office and communication skills. Personnel Division.

758. TECHNICIAN - Requires AAS or equivalent with knowledge of math and physics and working background in vacuum systems. Accelerator Department, ISABELLE,

OPEN RECRUITMENT: Opportunity for present Laboratory employees and outside applicants.

755, PHOTOGRAPHY & GRAPHIC ARTS ASSOCI-ATE - Requires BS or equivalent in photography, mathematics, or computer science and background in the operation of computer output microfilm devices and photographic procedures. Some shift work required. Photography & Graphic Arts Division.

756. REFRIGERATION & AIR CONDITIONING ENGINEER - Plant Engineering Division.

757. RESEARCH SERVICES ASSISTANT - Requires manual dexterity, legible handwriting, and ability to learn laboratory procedures. To assist geologist in preparation of soil samples. Temporary (3 month) position. Physics Department.

Autos & Auto Supplies

3501 or 286-8097

73 VW - Fastback, 4 spd, radio, runs well. \$1300. George, Ext. 4769.

66 RAMBLER - Wagon, runs but rusted. \$50. C. Christianson, Ext. 7905. TIRES - (2) 800-16.5, \$6 ea or \$10/pair; (1) 800-16.5

like new, \$15; all 8 ply. Ext. 2898. 71 TVR VIXEN - English sports car, fiberglass, 4 spd,

am/fm Blaupunkt radio. Gwen, Ext. 3624 69 ROVER 2000 - auto, mechanically very good, but body and int scruffy, hence only \$295. David, Ext.

73 CAPRI - V6, 4 spd, anthracite/blk, good cond, 60K mi, many new parts. \$1500. Jim, Ext. 4157.

77 INTERNATIONAL SCOUT - II, 4 whl dr, mint cond, lots of extras, low mi. \$6,100. 821-0080 after 5.

17' TROTWOOD - travel trailer, sleeps 6, sink, stove, head, ref, hot and cold water, heat, clean. \$1900.

ASSORTED TIRES - E78, E70, D78 and 2 Ford '71 Torino wheel rims, reasonable. Rich, Ext. 4172.

NEW & USED TIRES - rims, repairs, MAG wheel service, reg, radial, Dunlop-Firestone, free instal, balance avail. Fred Usack, Ext. 4597 lunchtime or 475-4935 eves.

66 DODGE - Polara, 4 drs, auto, engine good, body fair. \$250. 732-0160.

77 PLYMOUTH - Fury Sport, buckets, a/c, p/s, p/b, wire wheels, landau roof, am/fm 8 trk. \$5,100. Firm. 588-4703.

76 TOYOTA - SR5 liftback, excel cond, 5 spd, 41,000 mi. \$3000. Eric, 399-3291.

74 GREMLIN - std shift on floor, 6 cyl, excel gas mileage, 50,000 mi, snows incl, must sell. \$995 or make offer. George, 732-4662 after 5.

67 MERCEDES BENZ - model 250S, 4 spd, excel cond, excel gas mileage, 76,000 mi. Best offer over \$2200. Gail, 878-4664 after 5.

TIRES - (2) used Goodyear G60-15 polyglass, RWL. \$30 for both. Frank, Ext. 4188. 71 MERCURY - Cougar XR7, auto, all power, a/c,

radial tires w/snows, low mileage. \$1700. 698-7661. 72 HONDA 450 - excel running, new rear tire and

batt, low mileage. \$600. 281-4871 after 6. 74 LINCOLN CONT - Mark IV, low mileage, reg gas, mint cond. \$6000. Mike, Ext. 2575.

60 FALCON - auto, 6 cyl, 7 good tires, new starter and carb, ball joints, front brakes, and valve job in May '77, runs good. Terry, 281-0360.

70 SUZUKI 500 - 2 stroke, excel cond, many recent parts, rebuilt engine 1 mo ago, must sell, extras. \$600.

68 VALIANT - 6 cyl, auto, p/s, 4 dr, excel running cond, body good. \$300. 727-7304 after 5:30.

74 DODGE - ½ ton pick up, 8' bed, heavy load springs, 19,000 mi, garaged, like new cond. \$2700. B. Kehl, 744-9861 after 5.

72 PINTO - Runabout, 3 dr, 50,000 mi, excel cond, 4 spd trans, 4 extra radial tires and hub caps, Kelly Springfield, almost new. \$950. Firm. Bob, Ext. 3121 or 744-5261.

74 PEUGEOT - 504, stnd, new radial tires, 2 snow tires, am/fm Blaupunkt radio, sunroof, excel cond, \$3800. Ext. 2921 or 728-9106.

77 CAMARO - blue w/white int, auto, 6 cyl, am/fm stereo, a/c, p/s, p/b, tilt steering wheel. Jeanne, Ext. 2921 or 325-1109.

72 DODGE - custom Polara, 4 dr, p/s, p/b, a/c, am/fm, speed control, rw defroster, excel cond. \$1000. Ext. 2945 or 744-4594.

69 MERCURY MARQUIS - auto, p/s, p/b, air, radio, clean, runs well. \$650. 928-9403 after 6. 73 PLYMOUTH DUSTER - 2 dr, 6 cyl, 3 spd, shift on

floor, radio, heater, 36,000 mi, excel cond. \$1495. Ext. 3593.

71 AMBASSADOR - very clean inside & out, needs timing work. \$200. 981-2899. 76 HONDA ST 90 - 102 mpg, good cond. \$425. 744-

63 CHEVY C-10 - truck, '70 engine, new clutch, radi-

ator, best offer, 744-2444.

the asking. John, Ext. 4076.

72 MERCURY - 9 pass station wagon, a/c, p/b, p/s, very good cond. \$975. 732-2134.

70 CHEVY STA WAGON - 307, 8 cyl Nomad, excel cond. \$600, 585-2862.

67 FORD PICK UP - red, 65,000 mi, 8', 4 whd, Meyers plow, 4 brand new brushed aluminum mags (16.5x 8.25), partially fin cab w/cabinets, needs some work. \$2000. 567-2214 after 5.

71 PLYMOUTH FURY - 2 dr/HT, w/trailer hitch, cap discharge, new brakes, tape deck, good cond. \$650. Steve, 473-4982 eves.

CAR RADIO - new pushbutton audiovox am, fits most GM cars. \$20. Ext. 4532.

74 HARLEY DAVIDSON - 175cc road & trail, 2600 mi, excel cond. \$400. 727-7304 after 5:30. 70 FIAT 850 - Coupe, poor body, runs good. \$75. Al,

Ext. 3273 or 298-8537 after 5. 65 CHEVY MALIBU - Classic, 2 dr station wagon, engine poor, body worse, for parts, on site, yours for SNOWS - (2) C78-13, \$50; (5) B78-13, \$75; Ford 4 bolt rims, \$5 ea; some Chevy and VW parts. 744-3968 after 12 noon.

69 FORD SUPER VAN - new brakes, clutch, paneled and carpet, needs windshield. Mark, Ext. 4278 or 928-5684.

CHEVY - Competition 5m Bik, Muncie trans, Sears, slicks, all must go. Serious inquirers only. 744-3968.

71 PINTO - 2 dr, 4 spd, 2 new tires, 2 new snows, gd gas mileage. \$550. Fernando, Ext. 2259, 924-8651 after 5.

72 HONDA CB 350 - 9,000 mi, excel cond, must see. \$425 or best offer. 289-5615.

Boats & Marine Supplies

10' SAILBOAT - fiberglass w/mahogany thwarts, oak gunwhales, beautiful lines. \$400. Ext. 4745 or 744-3225.

69 LUHRS - 28', 225 Chrysler, fly-bridge, out riggers, original owner, many extras. \$6500. 281-6029.

77 EVINRUDE - 35 hp, electric start, long shaft, used 4 hrs, new cond except engine cover slightly charred by fire. \$675. Joe, Ext. 4069.

TRAILER - for 17' boat, made by Certified, galvanized coated, in good cond. \$160. Joe, Ext. 4069.

65 PACEMAKER - 26', F.B. Sedan, needs completion of exterior, some wood work, sound boat, must sell, no reasonable offer refused. Laird, Ext. 4068 or 734-

ANDREA - Model 90, depthmeter, factory rebuilt, 0-12', 0-120'. \$45. Bill Espensen, 298-4172.

19' SEA RAY - 100 hp Mercury trailer, etc. \$1500.

22' VENTURE SLOOP - sleeps 5, pop-top, head, galley, roller furling Genoa, 15 hp Johnson outboard. \$4500 or best offer. David, Ext. 3501 or 286-8097.

COX TILT - bed boat trailer, bearing buddies, extra tire and wheel, good for boat up to 17 ft. Ext. 3593. 14' BLUE JAY SAILBOAT - #1073, trailer, 2 sets

sails, spinnaker and pole. \$500. Ext. 2017 or 744-7708.

18' LAPSTRAKE - Runabout, hardtop, 1975 trailer, excel cond, leaving area, must sell. \$350 or best offer. Ext. 3063 or 744-4066 after Aug. 21,

15' SCOTCHCRAFT - and trailer. \$100. Bob, Ext. 3309 or 289-1568.

28 HP EVINRUDE - excel cond. \$200. Bob, Ext. 3309 or 289-1568

16' SAILBOAT - wood, Comet, 185 sq ft mainsail, excel cond, motor, trailer. \$450. Paul, 751-6033 eves. SIX MAN RUBBER RAFT - \$30. Bob Wieser, Ext. 3080.

ELECTRIC TROLLING MOTORS - (2) 12V one w/foot controls, make offer. Len, Ext. 2965 or 473-3305.

Miscellaneous

YARD SALE - Aug. 19 and 20, 10 a.m. to 4 p.m., 17 Mott Lane, Brookhaven (off Beaverdam Rd.) asstment of everything from clothes to piano. Ext. 3583 or 286-0614.

GARAGE SALE - Aug. 19 and 20, 37 Belair Rd., Selden, furniture, collectibles, etc., everything very low priced. 698-0710.

GARAGE SALE - Aug. 19 and 20, Middle Island Rd., Yaphank, 2nd house north of Main St., Sills Rd., 2 bureaus, appl, sofas. Ext. 3561.

GARAGE & YARD SALE - Aug. 19 - 1 day only, relocating to new state, 21 Eleanor Ave., Mastic (off Mastic Rd.) drapes, "Sloane" furniture, d/r set, kit util, something for everyone!

BIKES (4) - 20" girl's 1 sp, \$20; 24" boy's 1 sp, \$25; 26" boy's 1 sp, \$25; 26" girl's 3 sp racer type w/ generator, \$35. All in good cond. 286-8119.

HEADBOARD FRAME - Drexel, contemp, for queen bed, \$40; air conditioner, \$50. 821-0214.

COUCH - 6 foot, velour, choc brown. Free if you pick up. Harvey, 4605.

LOVESEAT - 1, gold plaid, good cond, \$65; 1 sq Early Amer end table w/storage space, \$35. Ext. 3312/ 3341 or 878-2591, Sharon.

PUPPIES - Wire hair fox terrier. 878-4261 after 6. HANGING LAMP - Antique tiffany-style, \$395; pair walnut end tables and pair brass lamps, \$150; misc. oak chairs, dressers. 878-4214.

POOL LADDER - for 3' pool, \$5. Steve, Ext. 2350 or 585-8395.

ELECTRIC RANGE - Green, w/hood, 5 yr old, excel working cond; kitchen sink, green; bathroom sink, blue. Mary, 281-0268 or Ext. 2926.

ELECTROLUX RUG SHAMPOOER - and floor waxer. Excel cond, must sell, Best offer, 277-5851 after 7.

RUG WOOL - 57 lbs, cut, sewn and rolled, ready for braiding, \$50.878-2134.

AIR CONDITIONERS - (2) GE, both used one mo: (1) custom superthrust, 8,500 BTU, \$245; (1) Carry Cool, 4,000 BTU, \$95. Phillips, Ext. 4235.

DELETED LP ALBUMS - by popular vocalists including Doris Day, Ella Fitzgerald, Peggy Lee, Tony Bennett, Nat Cole, Jerry Vale and many others. \$3.00 ea in new cond. Send wants to Bill Gallagher, HFBR,

WINDOWS - {2} double hung, 50"hx64"w, w/storms and screens. \$125. Ext. 4255 or 744-8226.

LAYING HENS - (4) rooster (1) \$2.00 ea; swivel rocker, \$20; 19" B&W Panasonic TV, \$75; Cosco stepstool, \$8. 325-1961.

BOY'S & GIRL'S BIKES - age 10, \$20 ea. Roger, Ext. 3785 or Ext. 3178 eves.

PLYWOOD - (6) pcs ¼, 4'x8', \$3 ea; (2) storm windows 18"x36", \$3 ea. Frank, Ext. 2311 or 567-5131.

BICYCLES - (2) Ross Eurotours, 27", single spd, lock & chain, new, never ridden. \$70 ea or \$130 for both. Chris Schwarting, 283-7235.

STEREO - hi fi, phonograph, portable, ideal for den or dorm. 584-5919.

CANNING JARS - (glass top) quarts. Ext. 2926. BICYCLE - Men's 10 spd, Motobecane mirage, brand

new. \$160. Ext. 3862 or 751-3055. HEATILATOR - freestanding conical fp, yellow porce-

lain finish, very good. \$50. Paul, 878-2847. COCKTAIL TABLE - w/2 end tables (used 6 mos) \$130; crib w/mattress, \$25. 286-8517 after 5:30 p.m.

SCREEN DOOR - (wood) 81"x31", \$15; bsmt storm & screen (wood) windows, 4 pr, \$25 or \$7 per pr; storm & screen windows 2 pr, 24"x31" double hung, \$15 or \$8/pr; post hole digger, \$15; Hollywood twin head boards (2) \$5 ea or \$8 for pr. 289-6490.

FISH TANK - complete 5 gal setup w/air pump, filter, full hood, heater, etc., all you add is fish. \$10. Alan, Ext. 2924 or 821-0761.

REFRIGERATOR - small, white, Ext. 2024 or 878-2215.

CONTENTS OF APT FURNITURE - record player, TV set; misc household items, Gould water pump, 8 Purick St., Bayport. Doug, 472-0977.

PIONEER - 8 trk player/recorder, fast forwards, pause, VA meters, mint cond. \$85. Paul, Ext. 4309 or 475-4394.

RADIATOR - cast iron, modern narrow 12 section, for steam or hot water, 21½" w, 32½"h, 7" deep, make offer. Adams, Ext. 2011. DISHWASHER - portable, Sears Kenmore, \$35; steel

shelves 36x18 (4) \$2 ea; 36x36 (2) \$4 ea; hand lawn mower, \$10 Len, Ext. 2965 or 473-3305. FREQUENCY COUNTER - 30 MHz 6 digit counter on

radio shack boards. \$35. Alan, Ext. 2924 or 821-0761. Ads left out of this issue because of lack of space need

not be re-submitted in order to run in next week's issue. GLASS TABLE TOP - 36" dia, clear, \$10; 5 light ceil-

ing fixture, green, pineapple, \$10. 281-8557. CHART RECORDER - ranges 0.1 to 100V. \$30. Ext. 4058 or 286-0436.

INDUSTRIAL TYPE OVEN - all stainless, 1200 watts, temp control, new cond. \$55. Ext. 4058 or 286-0436.

ELECTRONICS TEST EQUIP - scopes, power supplies, V.T.V.M. and scuba diving equip, all excel cond. 212-459-7467.

DINING RM SET - Danish modern, table w/2 leaves, 4 chairs, buffet and china closet w/beveled glass doors, walnut finish, good cond, \$395; sofa bed, foam, sleeps 2 comfortably, \$95. Ext. 4532.

TENT - 9'3"x9'3" umbrella, \$25; bicycle, 20" Ross, 30; pool table $2\frac{1}{2}$ 'x $4\frac{1}{2}$ ', 20; baby rocking horse chair, \$5; bathinette, \$5; toys, clothing, etc. Palais, Ext. 2907 or 698-0576.

LAFAYETTE - Telesat 50 SSB 23 channel, turner Mark III power mike; ½ wave ant, power pack, P/A horn, cable, SWR meter. \$150. Bill, 698-4882 after 5:30.

REFRIGERATOR - under counter, coppertone w/small freezer, \$40; ping pong table w/net and paddles, \$20; baby dressing table, white wicker, like new, \$10; CB mobile 23 channel, Royce Gyro lock w/power pack and mike, \$40. Pat, 924-7044.

MAGNAVOX TV - stereo theater, comb, 25" b/w TV/am-fm radio/phonograph, \$50; UNIVOX guitaramplifier, 1 channel, 60 watts, \$50; motorcycle brackets for car, incl straps and complete hook-up, \$20. Ext. 2926 or 585-9816 after 5.

DINETTE CHAIRS - (4) new carmel color w/saddle bag straps, \$80 firm; Lane low-boy buffet, walnut finish, excel cond, \$100 firm; Ig dining rm table, tortoise shell pattern, reg \$500. Sacrafice, \$350, no chairs available. Linda, 281-0843

BOY'S BICYCLE - 20" wheels; high riser, banana seat, chrome fenders, excel cond. \$25. Ron, Ext. 4752 or 286-0353.

ALUMINUM STORM SASH - (2) 341/2"wx40"h, to fit within casings; 2 aluminum storm sash, 35"wx40"h, to fit on face of casings. \$5 ea. Pat, Ext. 4519.

DOVETAIL FIXTURE - for 1/4" or 1/2" stock up to 8" w/ fittings and router blade, used once. \$18.744-3744.

ROTISSERIE BROILER - large, \$20; sewing machine

cabinet desk model, 3 drawers, \$10, 473-4541

FIREPLACE EQUIP - \$10; 2 large traverse rods, \$5 ea; coffee and end table, \$12 ea. Stuart Levine, Ext. 3227.

FREEZER - 12 cu ft GE upright, like new. \$200 or best offer. 727-7093 after 7.

BABY ITEMS - good cond, full size crib, \$18; swingomatic, \$8; Gerry carrier, \$8; infant seat w/handle, like new, \$8; car seat, \$3.744-2514.

DRAPES - 144"x84", \$50; fireplace: screens (2) \$10 ea, 3 pc tool set, \$15. Jim, Ext. 4157.

FREE - black, long haired female cat, 8 mo old, spayed, very clean, housebroken, gentle, likes children and dogs. 924-5192 eves.

BIRD CAGE - w/floor stand, excel cond. \$12. M. Laffer, Ext. 3354.

REFRIGERATOR - GE, very old but works, no offer refused. Ext. 3766 or 286-0123 eves.

GE FROST FREE FREEZER - 15 cu ft, used 1 season, excel cond, best offer. 363-6121 after 6.

HI RISER - 2 yrs old, excel. \$90. 744-3574

BIKE - Sony 10 spd, men's 211/2" f, 27" whis, \$70; child's bike seat, new, \$12; B&D 18" elec lawn mower, \$75. 475-0144 after 6.

COCKTAIL TABLE - reg \$100, now \$50; smoked glass w/chrome; muslin style bedspread, queen size, reg \$60 brand new, \$20 firm. Linda, 281-0843.

DEEP FRYER & COOKER - teflon lined, \$7; artificial fireplace, \$15; 6' pine artificial Christmas tree, \$5; Westinghouse baconer teflon grill, no need to turn grease tray, \$10; electric knife, \$7; electric hibachi,

BABY ITEMS - diaper changer/table, \$15; crib w/ mattress, \$25; bouncer, \$7; all like new or good cond, better price on whole package. Sue, Ext. 4207. 21 QT CANNING POT - like new, \$4.50: Foley Mill veg strainer, new, \$3; bottle capper and caps, \$6;

old Victrola (33x28x20) excel. \$100. 727-1617.

Real Estate

Real Estate advertised for sale or rent is available without regard for the race, color, creed or national origin of the applicant.

S. SETAUKET - 4 yr old 3-4 bdrms, exclusive neighborhood, ranch, center hall, Ig country kit, 2 baths, I/r, fam rm w/fp, lg fenced in yard, att garage, laundry rm, carpeted, 3 Vill Schls, extras, 1/3 acre, underground cables. \$45,000, will consider take over mortgage (cash over). Ext. 2298 or 736-2818.

S. SETAUKET - 3 bdrm ranch, fenced in yard, fin bsmt, 3 Vill Schl Dist, near stores. 751-0468.

MASTIC BEACH - 4 yr old house, 6 rms, full bsmt, fenced, 80x125. 281-5498.

BROOKHAVEN HAMLET - 3 bdrm cust ranch, d/r. eik, I/r, w/fp, 6 appl, oversized gar, screened in porch, 20'x20' barn w/lav, elect & water, lux landscaped 11/3 acres, prestigious area, many other features. 286-0246.

WEST ISLIP - hi ranch, S. Montauk Hwy, docking rights, 3 bdrms, 1/r, d/r, fam rm, eik, den, 2½ baths, 2 fps, deck, patio, low 60's. 661-3732.

UPSTATE - 160 scenic acres, mountain views, secluded, reasonable, sell all or part. 363-7032.

SELDEN - will give away to a lucky fam, 4 bdrm Colonial, well stacked, 9 mi W. of Lab, for \$33,900. Valued much higher. 732-2720.

E. MORICHES - 8 rm house w/detached 2 car garage, 1½ baths, w/w carpeting, attic and bsmt, black top driveway, 1 mi from Bay, an older house in a quiet neighborhood, low taxes. 878-2857.

CORAM - Townhouse, 3 bdrm, 2 level Clubhouse, pools, much more. No cash required, take over mortgage. 473-7914.

BELLPORT VILLAGE - $\frac{1}{2}$ acre, 2 car garage, 2 baths, screened porch, attached greenhouse, many extras. \$47,500. 281-8570.

S. SETAUKET - Strathmore "Framingham," 5 bdrms, 3 full baths, central a/c, underground sprinkling system, w/w carpeting throughout entire house, many extras. \$49,000. 698-1785 after 5 and weekends.

SHOREHAM VILLAGE - Lg Clarendon, custom colonial, 4 bdrms, 2½ baths, den w/fp, eik, formal d/r, 1¼ wooded acre, deck, walk to tennis, beach, country club. (Reduced) \$80,000. 744-1935.

ROCKY POINT - moving out of state, 4 bdrm Colonial, eik, 2½ baths, w/w carpeting, garage, wood deck, ½ acre, priv beach. 744-1156. SULLIVAN COUNTY - Livingston Manor, 15 acres

and mobile home, 2 bdrms, I/r, and kit, full bath, also 3 rm uncompleted cabin w/electric and water, excel fishing and hunting. 821-0080 after 5. SETAUKET - (Strong's Neck) 3 bdrm ranch, fin low level, central a/c, appl, w/w carpet, draperies,

storms, low taxes, beautifully landscaped, 34 acre, w/water view, priv beach, moorings. \$75,000, 25% cash. Ext. 3918. SHOREHAM - 3 yr old, 3 bdrm contemporary ranch,

2 baths, 2 fp, bsmt, secluded, priv beach. 744-9746.

FARMINGVILLE - 6 rm, 2 large bdrms, ranch, Cathedral ceiling and Franklin stove in den, new mod kit and appl, taxes, \$540, patio front and rear, paneling, must see. \$25,900. 698-1035 after 5:00.

WADING RIVER - 1961 ranch, walk to Sound, deeded beach rights, 2 bdrms, fp, oil hw heat, low taxes, fully landscaped. 727-0187 or 722-3789.

N. SHIRLEY - 3 bdrm apt, all util incl, ref needed, avail Sept. 1st. 924-8264 or 475-4930.

MT. SINAI - harbor view, 3 bdrms, 21/2 baths, furn, lg 22x22 l/r, full d/r, eik, all appl, wood burning fp, low util, 1 fam only, Sept. 7 to June 7. \$425/mo. Owner, 473-0674.

BROOKHAVEN- S. of So. Country Rd, custom built 4 bdrm. 2 baths, den, eik, I/r, d/r, center hall, fp, central a/c, 2 car garage. Also for sale. 286-0919.

MASTIC - 15 min from Lab, 8 rms, 11/2 baths, fp, 2 car agrage 100x100 chain link + util or sell for \$35,000. 281-6116 or 924-3736.

STRATHMORE RIDGE - 2 bdrm ranch, w/w carpet, a/c, washer, dryer, dishwasher, maintenance, 5 min to Lab, avail Oct. 1st, 280/mo + util. Ext. 3537 or924-4602. Ming Yu.

WADING RIVER - attractive location, 3 bdrms, wooded yard, \$250/mo (util not incl), available immediately. (212)254-7206.

ROCKY POINT - "The Tides," 3 bdrm ranch, lg lot, quiet street, priv beach, 2 car garage, eik, formal d/r and l/r w/bay windows, bsmt office, den w/fp, patio. \$425/mo. Ext. 3063 or 744-4066 after Aug. 21.

MASTIC - room, private home of bachelor, isolated, clean, (professional man/owner) minutes from Lab, Edgewood St., corner of Eleanor Ave. 281-6891 or 345-2882.

SHOREHAM - 4 bdrm "Contemporary" Colonial on 3⁄4 wooded acre, priv beach, 10 min to BNL, avail Sept. \$450/mo plus util, or consider selling for \$75,000. 744-1679.

LAKE RONKONKOMA - cottage for rent 10 min from Stony Brook Univ, furn or unfurn, single preferred. \$225/mo. S, Kiss, Ext. 2012 or 588-1889.

Car Pools

SMITHTOWN - want to start or join car pool near Rt. 111 and Main St. Ext. 4324 or 724-0470.

EAST ISLIP - 2 man car pool desires other rider/ drivers, Ext. 4532.

RIVERHEAD - 1 or 2 drivers wanted to complete existing car pool. Pat, Ext. 4519.

Lost & Found

FOUND - an Armstrong flute, a multi-colored lady's sweater, a Sears hair dryer, a pair of brown leather lady's gloves, and a Rawlings softball mitt. Contact Lost and Found Office in Personnel

Wanted

APARTMENT - 3 or 4 room in Bellport-Brookhaven, E. Patchogue area. Kathleen, Ext. 3632.

ENGINE - 20 to 25 hp Johnson marine outboard, for parts, need powerhead, reasonable price. John, Ext. 3292 or 286-1348.

CHEVY ENGINE - 307 CID or any 6 cyl 1968 or newer, low miles, must run well, will pick up. Tom, Ext. 4013.

REL!ABLE CLEANING PERSON - 1 day per week for apt in Coram area. Mary, Ext. 2318 or 698-7941 eves.

PICK UP TRUCK SHELL - for 1/2 ton Ford pick up truck w/8' bed. Mary, Ext. 2318 or 698-7941 eves.

COTTAGE OR APT - Brookhaven, Bellport, Sayville areas. Kathi, Ext. 2913 or 589-8410 eves. PERSON - to share house in Bellport village. Mar-

garet, 286-9035. ROOMMATE - to share house 10 mi from Lab, \$125/ mo and \$100/mo. Don, Ext. 3254.

WOODEN SHIPS DIVERS - zincs props mooring, hull scraping, recovery and discovery. 744-3968. HOME - for 5 yr old male Irish setter, needs room to

run. 286-1201 after 5. RIDE - needed to Indiana Univ. at Indianapolis or vicinity (close as I can get eg. Ohio) between Aug. 17

and Aug 22. Willing to share expenses and driving. Gwen, Ext. 3624. HOSTESSES - for Tri-Chem classes, see how color

creative you and your friends are. Marie, 399-2082. HOME - for 3 yr old pedigree female collie, spayed, moving and cannot take. Frank, 399-4423 after 6.

KNEE HOLE DESK - by univ. student, no cost. S. Kiss, Ext. 2012.

HIGH CHAIR - playpen and car seat for baby. 399-3282. BOOK SHELVES - used, reasonable price, for chil-

dren, 751-3055 or Ext. 3862. ROOMMATE - responsible person to share 12 rm house, Rocky Point, \$92/mo + util. Jack Metzler,

Ext. 3433. ROUND SOLID OAK TABLE - approx 48" diam,

pedestal bottom, claw feet. Pat, Ext. 4519. FELLOW - who recently bought a windshield washer unit for a VW from me. I found the hose for it. F. Kainz, Ext. 3898.

HOMES - year round for satin-black, Irish Set/Lab retriever mix pups, ready for homes. Ext. 3325 or 878-4864 after 6.

RIDE - needed from L. Ronk. to Lab, 8:30-5:00. C. Whiting, Ext. 3084 or 585-7780 after 5. HOUSE SITTING - Aug 13-31, near Lab desirable, no

charge. Ext. 2618. PILOTS - anyone interested in re-forming BNL's "Fly-

ing Club"? Call Rod, Ext. 4805.

RIFLE - 30-06, excel cond only. Ext. 2482. BICYCLE - for 6 yr old, tricycle for 4 yr old to buy or hire for 5 mos. Dennis, Ext. 4382.

SNOW BLOWER - in good cond. Bob Walton, Ext. 2388 or 286-8535.

FOOTLOCKER - for college bound student. Reasonable, 929-4522.

CONN TRUMPET - in very good cond for advanced student. 929-4522. FOOTLOCKER - or small trunk. Morris, 744-5096. GOLF CLUBS - ladies set, bag, cart, good cond, rea-

PERSON - needing paper for paper drive or other purpose. Ext. 3325. TYPEWRITER - electric, working cond. 277-5851 after

sonable, for beginner. Dottie, Ext. 3480.

DRESSER - w/plate glass wall mirror, approx $36^{\prime\prime}$ x $48^{\prime\prime}$. 277-5851 after 7.

BASEBALL CARDS to buy, sell, or trade. 1950-1972. 286-8751 after 6.

ROOMMATE - share house 10 mi from Lab. \$125 per mo. Don, Ext. 3254.

HOME FOR KITTENS - 6 wks old, 1 female calico, 1 grey/white male. Alma, 281-7547.

WEIGHTS - for high school athlete. Metal preferred. Andy, Ext. 4497.

HANDYMAN - domestic jobs, painting, repair work. Nick, 286-9249.

PAINTING - int/ext, free estimates, reasonable rates. 727-6539 or 283-6255 after 6.

BLACKTOP - paving & sealing. Bob, 475-4382. CERTIFIED NURSES AIDES - will work Miller Place,

Sound Beach, Rocky Pt, Port Jeff. 744-3968 after 12 ACCIDENT? CAR DENTED? NEED A PAINT JOB? don't be drowned in a sea of estimates and other

hassles. Ext. 2546 or 744-4047 after 6. TREE SERVICE - removal, trimming, pruneing - yards, cellars and attics cleaned. 727-1617.

CHILD CARE - my children in school full time, have lots of love and attention to care for yours in my home in Shoreham. Lunch, snack, fenced yard. Carol,